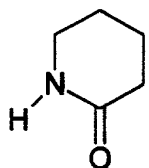
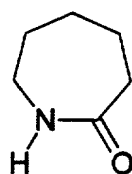


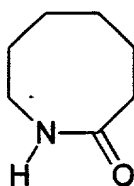
Endocyclic amides



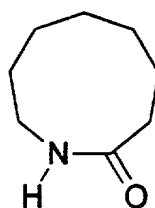
δ -Valerolactam



ϵ -Caprolactam

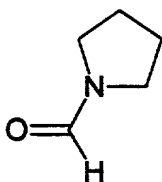


2-Azacyclooctanone

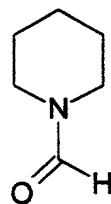


2-Azacyclononanone

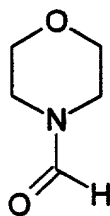
Exocyclic amides



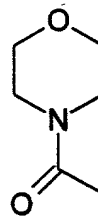
N-formyl pyrrolidine



N-formyl piperidine



N-formyl morpholine



N-acetyl morpholine

FIG. 1

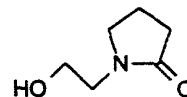
Pyrrolidones



2-pyrrolidone

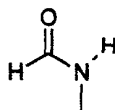


N-methylpyrrolidone (NMP)

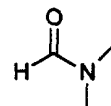


N-hydroxyethylpyrrolidone (HEP)

Formamides

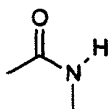


N-methylformamide (MMF)

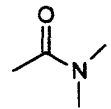


N,N-dimethylformamide (DMF)

Acetamides

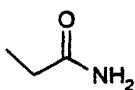


N-methylacetamide (MMA)

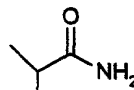


N,N-dimethylacetamide (DMA)

Higher-chain primary amides



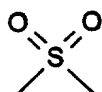
propionamide



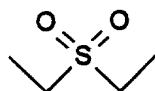
isobutyramide

FIG. 2

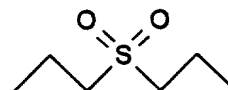
n-Alkyl sulfones



Methyl sulfone

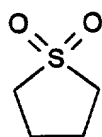


Ethyl sulfone

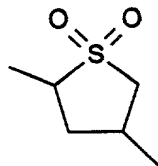


n-Propyl sulfone

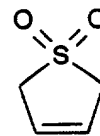
Cyclic sulfones



Tetramethylene sulfone
(Sulfolane)



2,4-Dimethylsulfolane



Butadiene sulfone
(Sulfolene)

FIG. 3

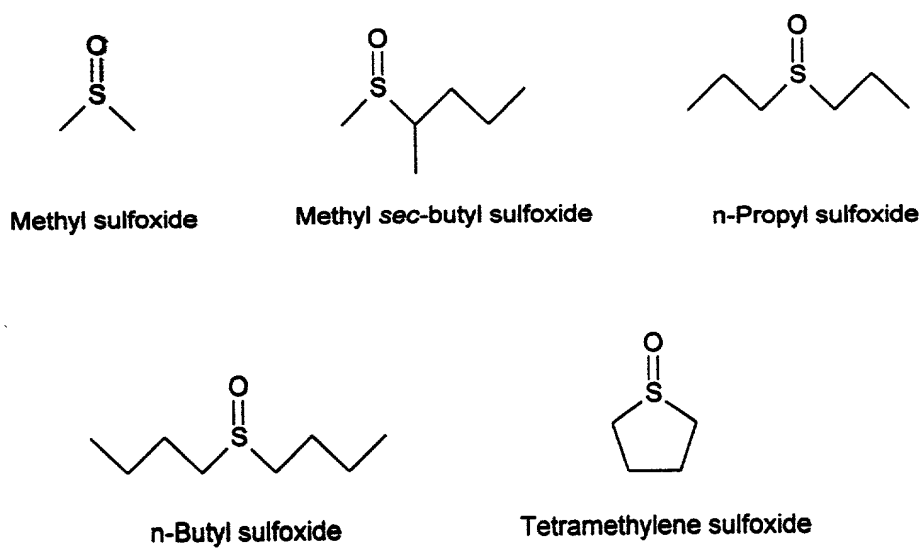


FIG. 4